

**ABSTRACT OF THE DISCLOSURE**

The flow of a liquid slurry of comminuted cellulosic fibrous material (e.g. wood chips) in a vertical vessel is made more uniform by providing a plurality of vertically spaced sets of either substantially continuous or discontinuous protrusions which extend inwardly from the internal surface of the vessel a maximum distance of between about 2-12 inches. A preferred vessel is a continuous or batch digester. The protrusions may have an arcuate, rectangular, isosceles or scalene triangular, right triangular, or trapezoidal cross-section, and may be spaced from each other vertically between about 1-12 feet, and have a height of between about 1-3 feet. Discontinuous protrusions have a preferred arcuate spacing of between 1-10 feet.